MODIS Technical Team Meeting
Thursday, January 8, 2004
GSFC Building 33, Room E125

Vince Salomonson chaired the meeting. In attendance were Jack Xiong, Dorothy Hall, Shaida Johnston, Chuck McClain, Ed Masuoka, Bob Barnes, Wayne Esaias, Michael King, Greg Leptoukh, and Skip Reber, with Yolanda Harvey taking the minutes.

1.0 Upcoming Meetings

- MODIS Science Team Meeting, Baltimore-Washington International Airport (BWI) Marriott — POSTPONED – Date TBD

2.0 Meeting Minutes

2.1 General Discussion

Salomonson reported that he, working with Dr. Paula Bontempi at HQ, has made progress putting together a review team to look at the calibration/characterization of MODIS with specific reference of getting climate data record quality observations of ocean color. An agenda has been prepared for the meeting on February 11 and 12 that so far includes presentations on SeaWiFS calibration and use (McClain, et al.), L1 Terra data (Xiong), Terra radcor approach (Evans), polarization/BRDF issues (Gordon or Voss), MOBY (Johnson), MODIS Optical Ray Tracing (Waleshka), and SBRS (Drake). This agenda is all subject to review by Dr. James Mueller at San Diego State University who will head the review team of about 6-7 people.

Salomonson said that when the MODIS Science Team is reconstituted, it likely will have the same sub-groups (Instrument, Land, Oceans, and Atmospheres). The role of what had been often termed "discipline leaders" will be restyled somewhat reflecting the need to necessarily have stronger interactions with HQ. Those that have that function will act more as Group Leaders and liaisons to their land, ocean, and atmospheres counterparts. Salomonson plans for the team to pursue four main thrusts. One will be accomplishing a peer-review of the relevant ATBDs and/or user guides. Another second will be to pursue climate quality data sets. A third thrust will be work with appropriate groups to advance the assimilation of MODIS products into models; i.e. an emphasis on "data assimilation". The fourth thrust will involve enhancing/facilitating the acquisition of MODIS products by working with the DIS or other entities so that people can get products easily.

Salomonson reported that in the Remote Sensing section of a recent Space News issue, there was an interesting piece on using MODIS data to find 7 new chameleon species in Madagascar (see also http://earthobservatory.nasa.gov/Newsroom/NasaNews/2003/2003121816307.html).

Johnston reported that the NPP Science Data Segment is getting new L1 requirements from NASA HQ, and the debate is on SDS functionality. Salomonson noted that the Japanese are looking at some kind of LDCM capability.

2.2 Instrument Status

2.2.1 Terra MODIS

Xiong reported that Terra has come out of safe hold, and everything is functioning normally. A few detectors have slight gain changes. The mirror side correlated noise (about half a DN) pattern changed back to the case before SFE anomaly. The last pattern change was due to the testing related to the direct broadcasting issue. MODIS went back online on December 22, 2003, and the nadir door opened two days later. Three detectors have increased noise. Similar noise change occurred previously each time when the sensor was reset. A review meeting with HQ is set on Friday to decide when to implement the Terra DB turn-on plan.

2.2.2 Aqua MODIS
Xiong reported that Aqua is operating normally.

2.3 DAAC
No update given.

2.4 MODAPS
Masuoka reported that he will soon send out the minutes of the last meeting on the data corruption issue. The problem occurs between the PDR server at the GES DAAC and the ingest servers at the LP DAAC. Within the products that are sent to the LP DAAC, there are 3-4 granules (out of 3400) that have bit flips or other minor noise in them. The problem granules were first detected when MODAPS began a reprocessing of using the aggregation product. The software used to produce the downstream products compares two fields in the aggregation product for consistency. Several tiles per day were failing when the input files were found to contain inconsistent information. The first instance of corrupt files in the reprocessed Terra data was found in products from data day January 4, 2003, which were inserted in the LP DAAC on January 16, 2003. There are going to be a series of tests to check each step of the process of sending granules to the LP DAAC, mostly to see if there is a bad interface on the PDR server or one of the firewalls. There was a corruption of the data pools in the ECS system, but that was a separate issue unrelated to this one. To insure all products arrive at the DAACs without data corruption, the ECS contractor will install software that checks the checksum of each arriving product file and will pull the file again from the PDR server if the checksum sent with the file doesn't match the checksum calculated at the DAAC.

Reber reported on a discussion of the EDG that took place during a telecon he attended on Monday (January 5, 2004). Apparently there were a number of meetings between the NASA HQ and ESDIS people before the holidays, and there was some sort of suggestion for getting rid of the EDG. However, there has been no follow-up on this idea. Reber also reported on a meeting at NASA HQ about the augmentation of hardware at certain DAACs and their fill rates; the meeting went fairly well. Apparently the people at Raytheon who originally did the calculations of when the DAAC archives would fill have revised their results (based on the data and their assumptions); meaning that the eventual fill date has been moved farther out by several months. Finally, there was also the topic of retaining L1A or L1B data at the GDAAC. Masuoka said that for the MODIS DAACs, the only problem is in the size of L1 products, and that's only at the Goddard DAAC; the others are fine. Reber said that based on all the data presented, it will probably be concluded that L1B should be retained rather than L1A. This discussion is still underway and there may be details to refine that conclusion.

2.5 Oceans

Salomonson reported that, per HQ direction, we will now start to see Ocean Color (OC) processing start on the SeaWiFS side. Masuoka, Feldman, and McClain have been meeting to work that out. On top of that, SeaWiFS will also distribute the Ocean Color products in early February after MODAPS completes processing through data day February 1, 2004. Masuoka noted that Aqua Ocean Color products produced by the SeaWiFS system will be in a SeaWiFS format and that the parameters produced will reflect a reduced set of products judged to be of highest importance to the OC community.

MODAPS will continue to produce the Sea Surface Temperature product for both Terra and Aqua MODIS and SST will continue to be distributed by the GES DAAC until further guidance is received from NASA HQ.

3.0 Action Items

3.1 New Action Items

None.

3.2 Old Action Items

3.2.1 Tech Team to further discuss NGST using MODIS data for validation of the NPP/NPOESS production process.
Status: Open.

3.2.2 PIP to develop list of items to go into work plan for the new contract (EMD).
Status: Open.

3.2.3 Kempler to bring back some proposals for how the disciplines can deal with the DAAC distribution problem.
Status: Open.

3.2.4 Masuoka to pursue MODAPS sending L1A Ocean subsets to University of Miami.
Status: Open.
Warner Berringer at U. of Miami is pulling L1A Ocean subsets from MODAPS in test mode but we haven't made that feed operational yet.